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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,287	08/26/2003	Mitsutoshi Hasegawa	03500.017504.	2681

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER	
ROSE, KIESHA L	

ART UNIT	PAPER NUMBER
2822	

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/647,287	HASEGAWA ET AL.	
	Examiner	Art Unit	
	Kiesha L. Rose	2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *9/9/05*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-2 and 5-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2 and 5-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to the amendment filed 9 September 2005.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Joshi et al. (U.S. Publication 2002/0192935).

Joshi discloses a semiconductor device (Fig. 1i) that contains an envelope with a first substrate (10), a second substrate (a circuit substrate can be mounted on the first substrate (Page 2, Paragraph 16)), a frame (30) interposed between the first and

second substrates, a low melting point metal (35) for bonding the first substrate to the frame, wherein the first substrate has a first region (14) and a second region (12) which are brought into contact with the low melting point metal, and in the first region, a material capable of higher maintaining airtightness with the low melting point metal than the second region is in contact with the low melting point metal, while in the second region, a material having a stronger binding power on the low melting point metal than the first region is in contact with the low melting point metal. In regards to airtightness as stated in the specification, it states that the low melting point metal material, can be made break- proof and can maintain its airtightness optimally if the one or both bonding portions have a portion where the low melting point metal material is bonded directly to the face plate or to a host material of the outer frame and a portion where the low melting point metal material is bonded to a base material that is formed on the face plate or on the host material of the outer frame. (Page 5, lines 1-13) Therefore the first region (12) has good airtightness since it is bonded to a host material, which is bonded on the substrate. In regards to the envelope being maintained in a reduced pressure atmosphere this is a product by process limitation, a *"product by process"* claim is directed to the product per se, no matter how actually made, *In re Hirao and Sato et al.*, 190 USPQ 15 at 17 (CCPA 1976) (footnote 3). See also *In re Brown and Saffer*, 173 USPQ 685 (CCPA 1972): *In re Luck and Gainer*, 177 USPQ 523 (CCPA 1973); In re Fessmann, 180 USPQ 324 (CCPA 1974); and *In re Marosi et al.*, 218 USPQ 289 (CAFC 1983) final product per se which must be determined in a *"product by, all of"* claim, and not the patentability of the process, and that an old or obvious product,

whether claimed in *"product by process"* claims or not. Note that Applicant has the burden of proof in such cases, as the above caselaw makes clear. Even though product –by [-] process claims are limited by and defined by the process, determination of patentability is based upon the product itself. The patentability of a product does not depend on its method of production. If the product in product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product is made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985)(citations omitted).

Claims 2 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Joshi et al. (U.S. Publication 2002/0192935).

Joshi discloses a semiconductor device (Fig. 2c) that contains an envelope with a first substrate (10), a second substrate (a circuit substrate can be mounted on the first substrate (Page 2, Paragraph 16)), a frame (30) interposed between the first and second substrates, a low melting point metal (12) for bonding the first substrate to the frame, wherein the frame has a first region (44) and a second region (14) which are brought into contact with the low melting point metal, and in the first region, a material capable of higher maintaining airtightness with the low melting point metal than the second region is in contact with the low melting point metal, while in the second region, a material having a stronger binding power on the low melting point metal than the first region is in contact with the low melting point metal. In regards to airtightness as stated in the specification, it states that the low melting point metal material, can be made

break- proof and can maintain its airtightness optimally if the one or both bonding portions have a portion where the low melting point metal material is bonded directly to the face plate or to a host material of the outer frame and a portion where the low melting point metal material is bonded to a base material that is formed on the face plate or on the host material of the outer frame. (Page 5, lines 1-13) Therefore the first region (12) has good airtightness since it is bonded to a host material, which is bonded on the frame. In regards to the envelope being maintained in a reduced pressure atmosphere this is a product by process limitation, a *"product by process"* claim is directed to the product per se, no matter how actually made, *In re Hirao and Sato et al.*, 190 USPQ 15 at 17 (CCPA 1976) (footnote 3). See also *In re Brown and Saffer*, 173 USPQ 685 (CCPA 1972): *In re Luck and Gainer*, 177 USPQ 523 (CCPA 1973); In re Fessmann, 180 USPQ 324 (CCPA 1974); and *In re Marosi et al.*, 218 USPQ 289 (CAFC 1983) final product per se which must be determined in a *"product by, all of"* claim, and not the patentability of the process, and that an old or obvious product, whether claimed in *"product by process"* claims or not. Note that Applicant has the burden of proof in such cases, as the above caselaw makes clear. Even though product –by [-] process claims are limited by and defined by the process, determination of patentability is based upon the product itself. The patentability of a product does not depend on its method of production. If the product in product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product is made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985)(citations omitted).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joshi.

Joshi discloses all the limitations except for an image display device and display device. Joshi discloses a first and second substrate where the second substrate is a circuit substrate, since the second substrate is a circuit substrate and different devices can be formed from a circuit substrate such as a display device and image display device, the display element and image display can be formed in the envelope and a television signal can be received by the image display device. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Joshi by incorporating a circuit substrate that can host display device and image display devices.

Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joshi.

Joshi discloses all the limitations except for an image display device and display device. Joshi discloses a first and second substrate where the second substrate is a circuit substrate, since the second substrate is a circuit substrate and different devices can be formed from a circuit substrate such as a display device and image display

device, the display element and image display can be formed in the envelope and a television signal can be received by the image display device. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Joshi by incorporating a circuit substrate that can host display device and image display devices.

Response to Arguments

Applicant's arguments filed 9 September 2005 have been fully considered but they are not persuasive. Applicant argues that the Jones reference does not disclose an airtightness ability, this is erroneous as stated in the previous office action (05/25/05) that the specification of the present application disclosed that the low melting point metal material, can be made break- proof and can maintain its airtightness optimally if the one or both bonding portions have a portion where the low melting point metal material is bonded directly to the face plate or to a host material of the outer frame and a portion where the low melting point metal material is bonded to a base material that is formed on the face plate or on the host material of the outer frame. (Page 5, lines 1-13) Since the Jones reference discloses the low melting point metal material is bonded to the host material then it would be inherent that it would have an airtightness ability as disclosed in the claims. Therefore the Jones reference discloses the claimed limitations and the rejection stands.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiesha L. Rose whose telephone number is 571-272-1844. The examiner can normally be reached on M-F 8:30-6:00 off 2nd Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on 571-272-1852. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KLR

Michael Trinh
Primary Examiner